

long, the larger 4-angled, glabrous, the smaller roundish, somewhat pubescent: leaves ovate, nearly entire, mostly rounded at both ends, often pubescent on the veins, sometimes all over, blade of the largest 17 mm. long, 10 mm. broad, mostly smaller (10 × 8 mm.); petiole shorter than the blade, generally pubescent with scattered hairs: peduncle at flowering time not more than 3 mm. long, fine-filiform: calyx shorter than the peduncle, frequently less than 1 mm. in longest dimension, longer than broad, tube longer than the teeth: corolla very small, about 2 mm. in diameter when fully expanded, darkened at the center; anthers purple: calyx in fruit about 15 mm. long, more or less 5-angled, teeth very short (less than 2 mm.) connivent; peduncle shorter than the calyx, very slender: berry yellow, much smaller than the calyx, 5 mm. in diameter when dry.

Acapulco, Mexico, Dr. Edward Palmer, winter of 1894-95, no. 304.

Physalis minuta belongs to the *crassifoliae*; its leaves have much the general appearance of *P. crassifolia*, to which undoubtedly it is closely related. It is, however, very different from that species in the very short, slender peduncles, the minute flowers and the connivent calyx-teeth. The size of the flower suggests affinity with *P. minutiflora* Moç. & Sessé but it differs at least in the entire leaves without any sign of being pruinose.

Dr. Palmer states that the fruit of this plant is sold all the year round in the markets of Acapulco for making soups, gravies and stuffing for fowls.

COLUMBUS, OHIO.

TWO ORCHIDS FROM NEW MEXICO

BY T. D. A. COCKERELL

On June 17 and 18 of the present year, Dr. M. Grabham of Jamaica, West Indies, who was visiting me at Pecos, New Mexico, collected in the immediate vicinity two species of *Corallorhiza*, which he brought to me alive. After studying the specimens, they were put in press, and examples have been sent to the New York Botanical Garden, to which also the living roots were forwarded.

In my study of these orchids, I came to the conclusion that both were undescribed. One of them, however, has been recognized by Dr. Rydberg as his *C. Vreelandii*, described from Colorado. My failure to discover this was owing to the fact that by some mischance I overlooked his description, though I had it by me.

CORALLORHIZA VREELANDII Rydberg *

The following account of the living plant will be useful: Flowering stems 25 cm. high or less, with about 32 flowers or fewer: ovary 10–12 mm. long, about 4 mm. broad: peduncle extremely short: perianth directed forwards, not at all spreading, the whole inflorescence pale pinkish-yellow; sepals 3.5 mm. at base, gradually tapering to the apex, 9 mm. long, with four rather indistinct suffused longitudinal reddish stripes; petals similar but broad-lanceolate, about 8 mm. long, and 4 mm. broad in middle, rather obtuse, with three reddish stripes, stronger than those on the sepals; lip entire, ovate, the margins involuted, forming conspicuous marginal elevations at the base, below the column; in the middle line of the lip, at the bend, below the stigma, is a prominent swelling, inclined to be longitudinally bilobed; lip with three dark purplish-red longitudinal bands, meeting at the apex: column curved, light yellow at end: pollinia 4, orange; no spur.

Corallorhiza Grabhami sp. nov.

Stems about 40 cm. high, smooth and red: flowering spikes short, about 70 mm. long: sepals dark purplish-red, becoming pale at base, about 8 mm. long and 2.5 mm. broad; petals purplish-red at apex, and spotted with the same color within and at sides; column spotted or streaked; lip white with reddish-purple spots, but no streaks, lip shaped as in *C. Corallorhiza*, with small lateral lobes, but apical margin much wrinkled and crenulate and basal half with two strong elevated keels.

Allied to *C. multiflora*, but easily separated by the form of the lip.

C. Vreelandii was infested by an aphid, *Macrosiphum corallorhizae* (Ckll.). Dr. Grabham collected two other species of orchids at Pecos, namely *Cypripedium Vegannum* Ckll. & Barker (unusually large), and *Limnorchis viridiflora* (Cham.)

* Bull. Torrey Club. 28: 271. My. 1901.

Rydb. Roots of *Cypripedium Veganum*, collected by Dr. Graham at Beulah, N. M., have been sent to the New York Botanical Garden, and it is hoped that this fine species will flower there.

PECOS, NEW MEXICO.

SHORTER NOTES

THE HABITATS OF POLYPODIUM POLYPODIOIDES. — Mr. Pollard's note on *Polypodium polypodioides* and *P. vulgare* in the Plant World for July, 1902, recalls to my mind some observations on the same plants, especially on the places of growth selected by the first named species. I have observed *Polypodium polypodioides* at many stations, ranging from sea-level to almost 4,000 feet altitude on the eastern slopes of the Blue Ridge, and am convinced that the plant does not prefer trees to rocks, but that it is confined to trees only when rocks are lacking. I have found this *Polypodium* most abundant one or two hundred miles away from the coast. In the immediate vicinity of the coast and for some distance back where rocks do not occur, it is plentiful on trees, but when both rocks and trees occur together, at moderate altitudes, at least below 1,000 feet, it grows on both, but, as Mr. Pollard has observed near Washington, much more plentifully on the rocks. Localities where the plant behaves as it is described as doing at the Great Falls of the Potomac, are numerous from middle North Carolina to middle Georgia; for example, the Falls of the Yadkin River in the former State and banks of the Yellow River in the latter State. However, after ascending beyond 1,000 feet, in places where trees and rocks are equally plentiful, especially on the eastern slope of the Blue Ridge in North and South Carolina and Georgia, I have not noticed a single instance of its occurrence on a tree, while rocks and cliffs exposed to the south or east, and the sun, harbor quantities of the fern wherever it can gain a hold.

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